FIG. 1

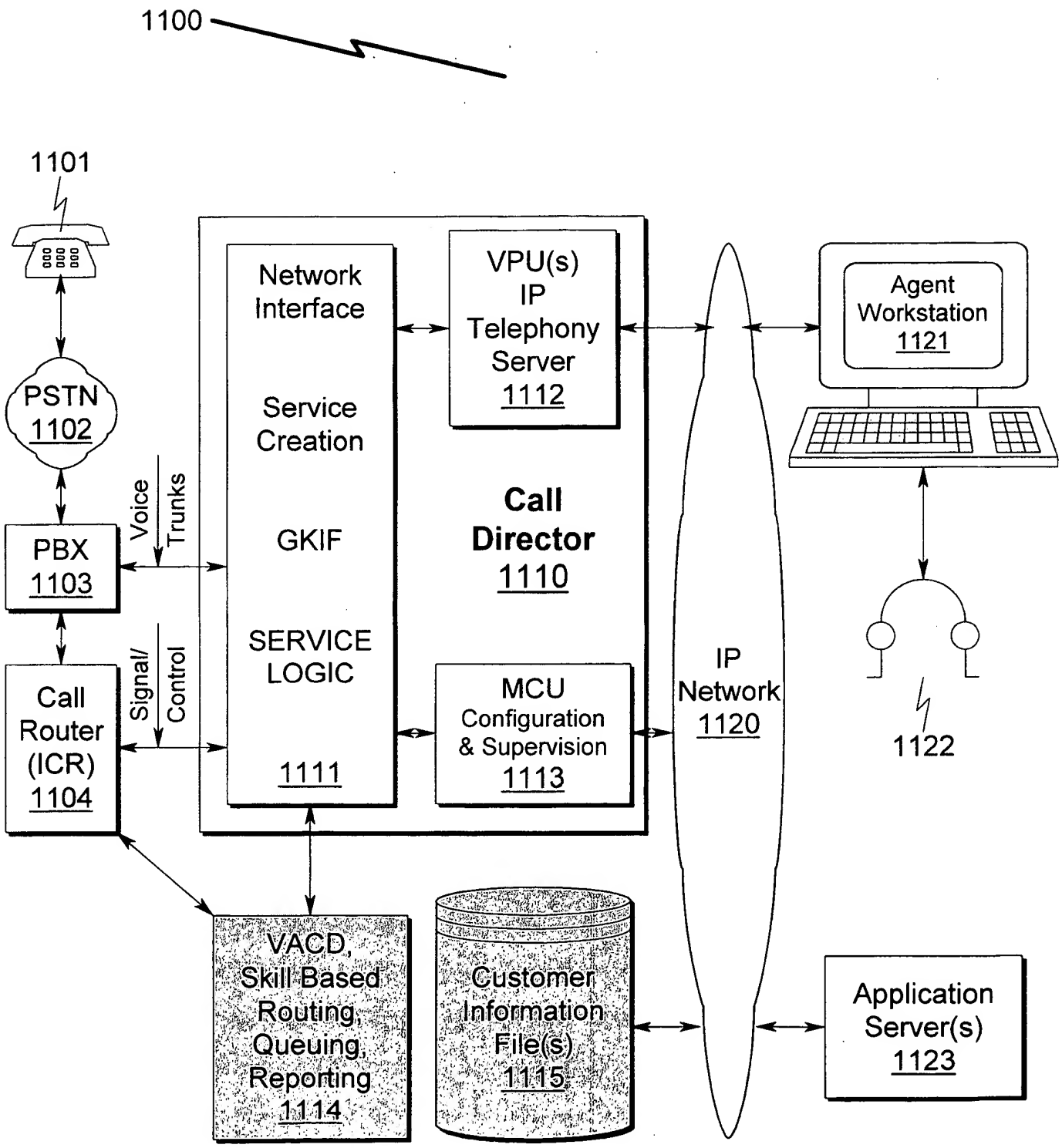

1100
1101
PSTN
1102
PBX
1103
Call
Router
(ICR)
1104
Voice
Trunks
Signal/
Control
Network
Interface
Service
Creation
GKIF
SERVICE
LOGIC
1111
Call
Director
1110
VPU(s)
IP
Telephony
Server
1112
MCU
Configuration
& Supervision
1113
IP
Network
1120
Agent
Workstation
1121
1122
VACD,
Skill Based
Routing,
Queuing,
Reporting
1114
Customer
Information
File(s)
1115
Application
Server(s)
1123

FIG. 2

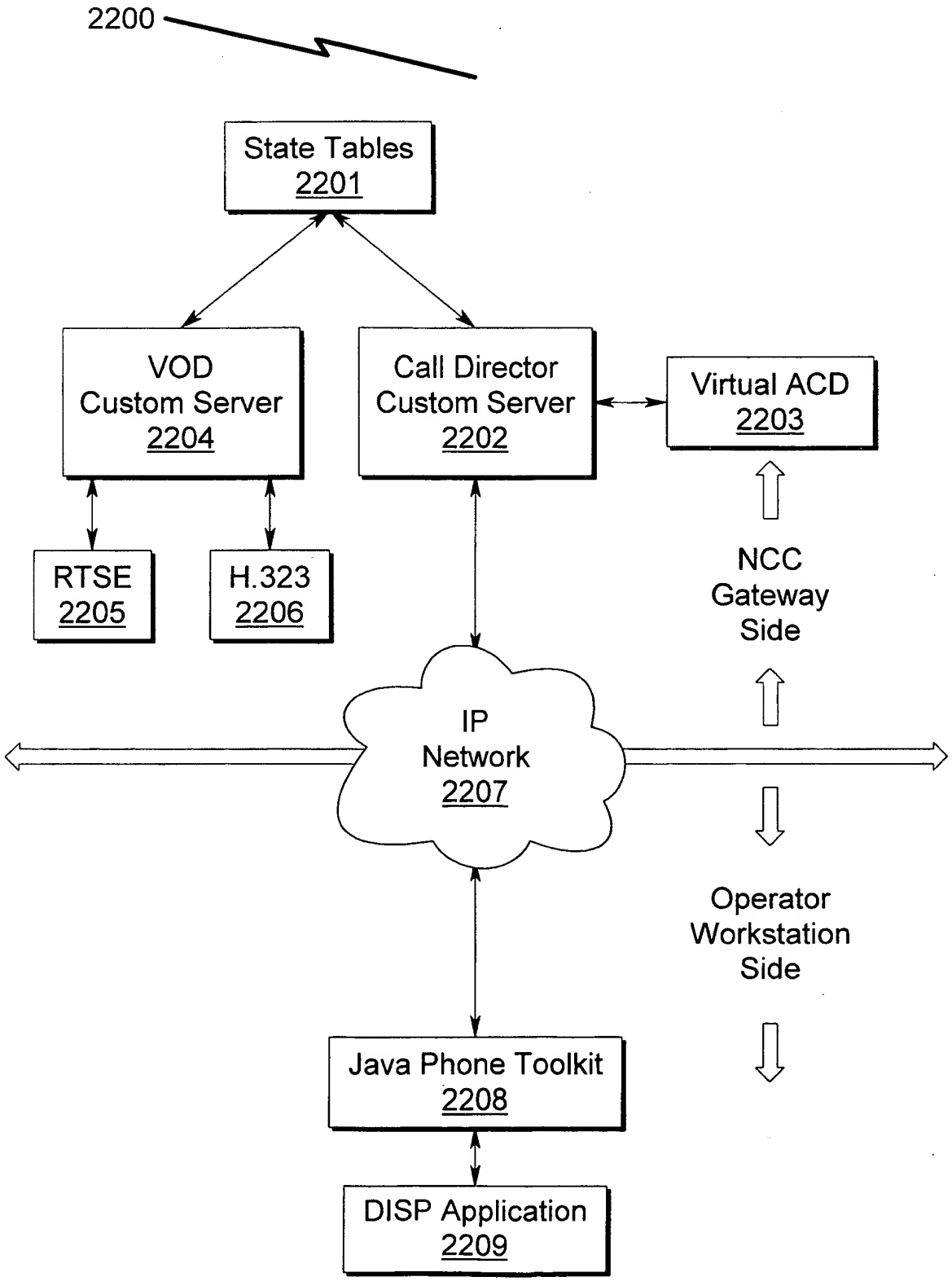

2200
State Tables
2201
VOD
Custom Server
2204
Call Director
Custom Server
2202
Virtual ACD
2203
RTSE
2205
H.323
2206
NCC
Gateway
Side
IP
Network
2207
Operator
Workstation
Side
Java Phone Toolkit
2208
DISP Application
2209

FIG. 3

Workstation Software Architecture

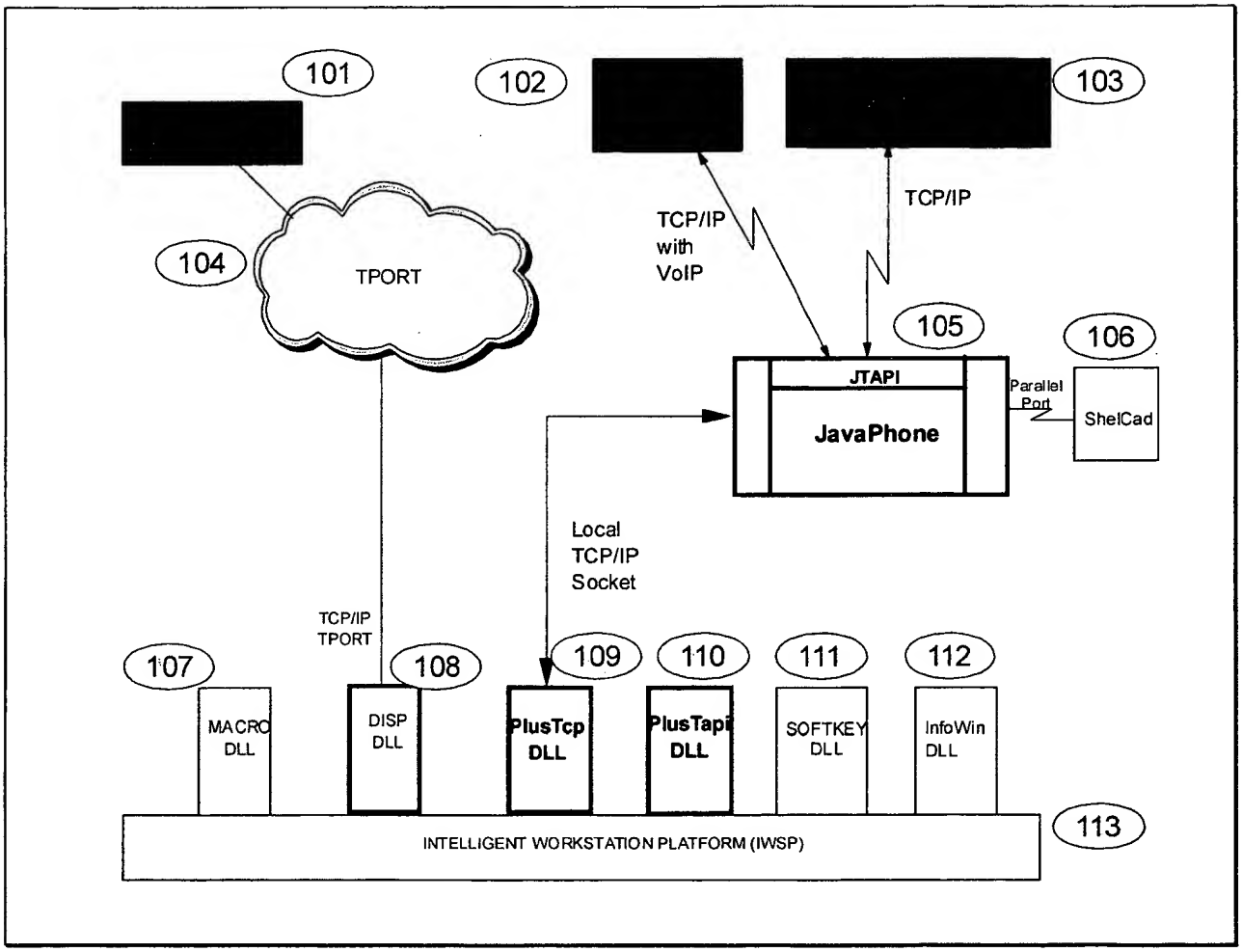


FIG. 4

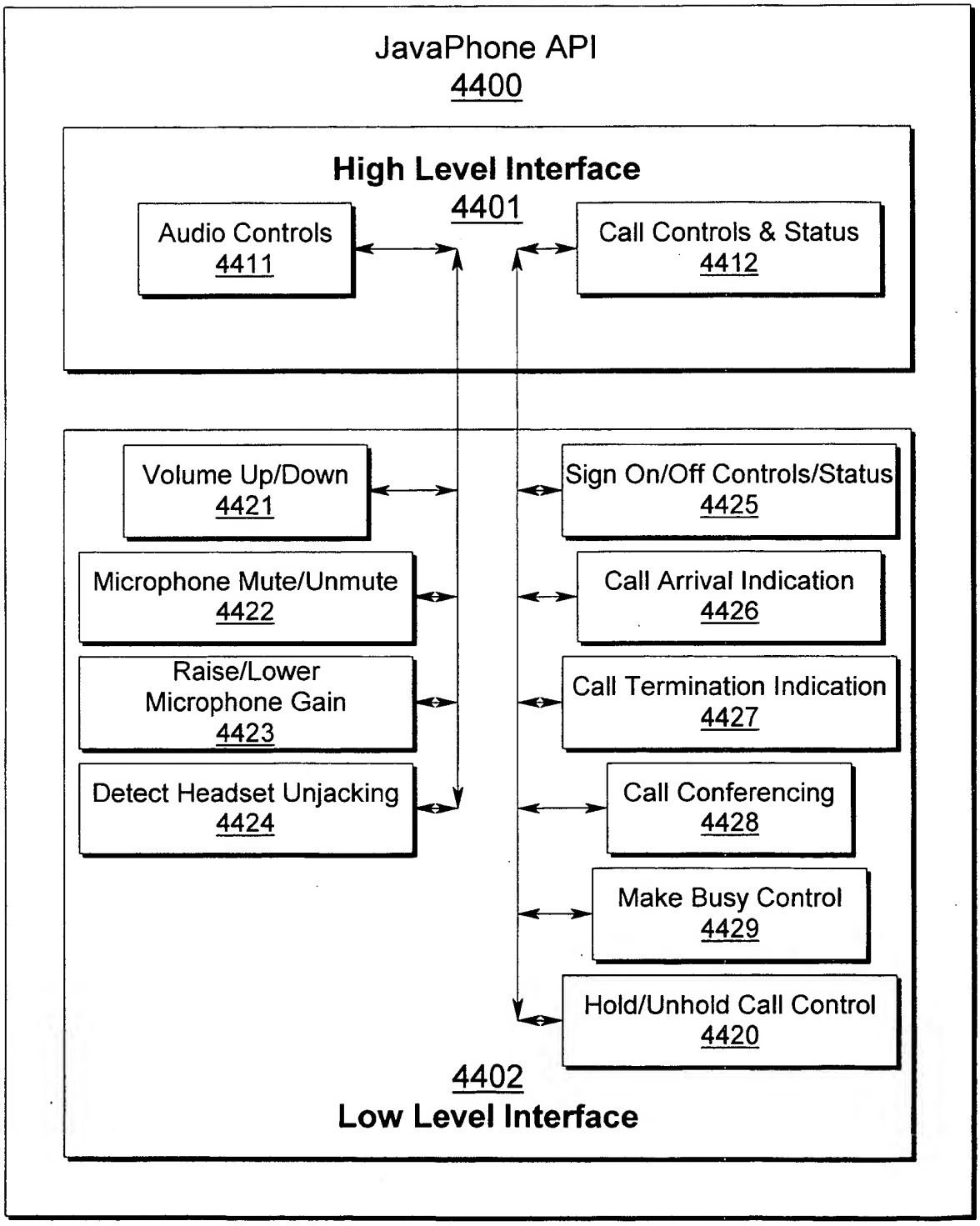

JavaPhone API
4400
High Level Interface
4401
Audio Controls
4411
Call Controls & Status
4412
Volume Up/Down
4421
Microphone Mute/Unmute
4422
Raise/Lower
Microphone Gain
4423
Detect Headset Unjacking
4424
Sign On/Off Controls/Status
4425
Call Arrival Indication
4426
Call Termination Indication
4427
Call Conferencing
4428
Make Busy Control
4429
Hold/Unhold Call Control
4420
4402
Low Level Interface

FIG. 5

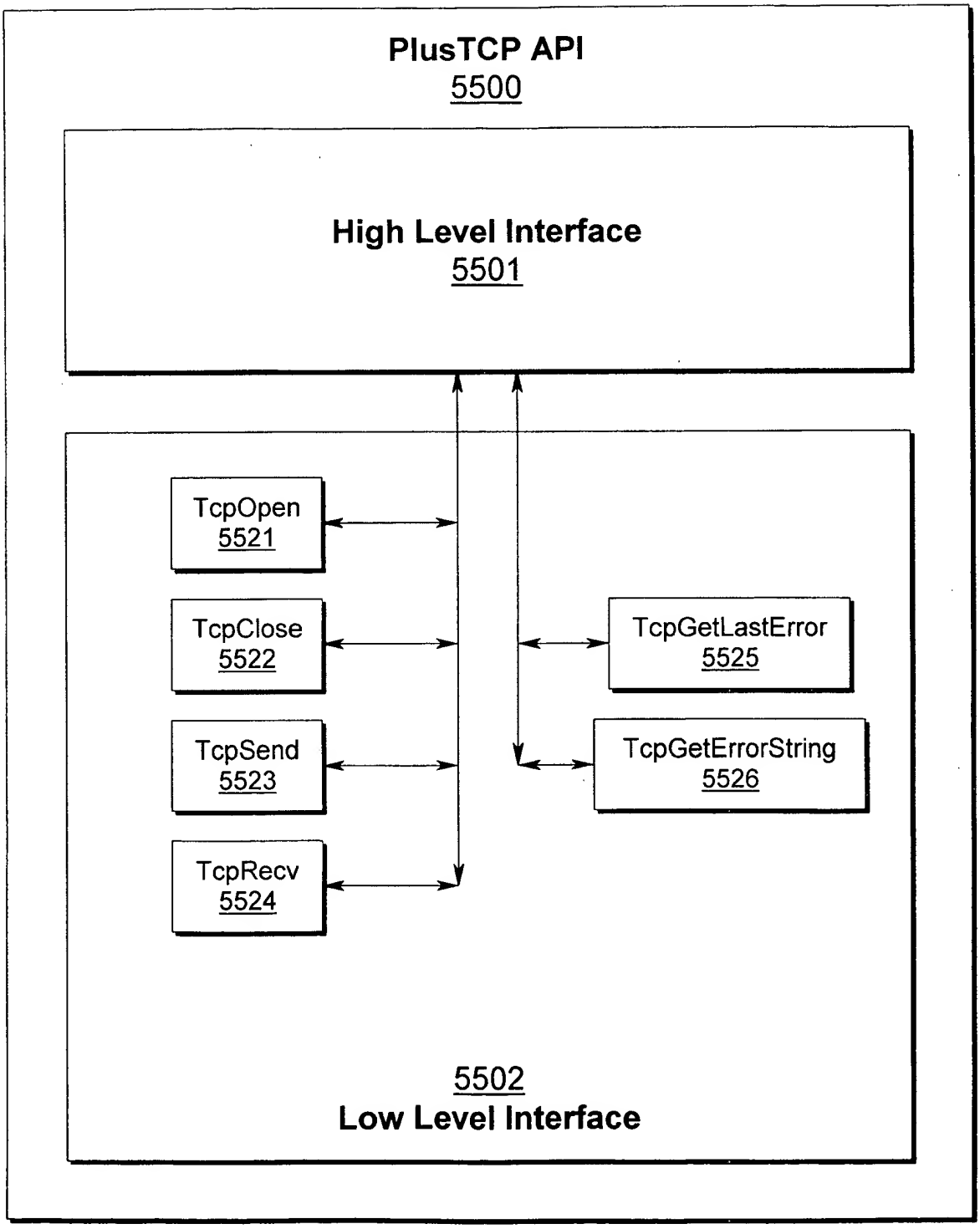

PlusTCP API
5500
High Level Interface
5501
TcpOpen
5521
TcpClose
5522
TcpSend
5523
TcpRecv
5524
TcpGetLastError
5525
TcpGetErrorString
5526
5502
Low Level Interface

FIG. 6

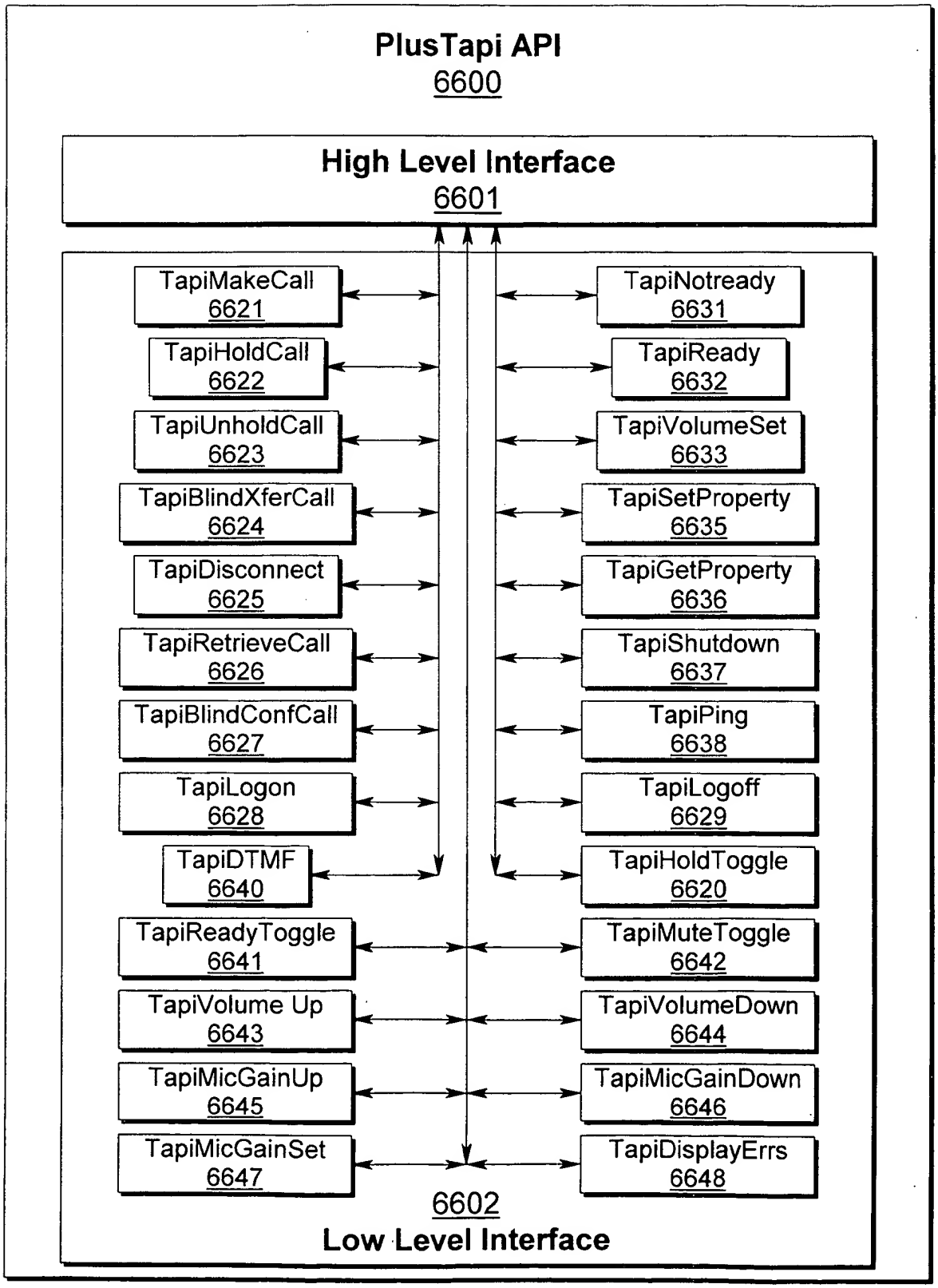

PlusTapi API
6600
High Level Interface
6601
TapiMakeCall
6621
TapiHoldCall
6622
TapiUnholdCall
6623
TapiBlindXferCall
6624
TapiDisconnect
6625
TapiRetrieveCall
6626
TapiBlindConfCall
6627
TapiLogon
6628
TapiDTMF
6640
TapiReadyToggle
6641
TapiVolume Up
6643
TapiMicGainUp
6645
TapiMicGainSet
6647
TapiNotready
6631
TapiReady
6632
TapiVolumeSet
6633
TapiSetProperty
6635
TapiGetProperty
6636
TapiShutdown
6637
TapiPing
6638
TapiLogoff
6629
TapiHoldToggle
6620
TapiMuteToggle
6642
TapiVolumeDown
6644
TapiMicGainDown
6646
TapiDisplayErrs
6648
6602
Low Level Interface

FIG. 7

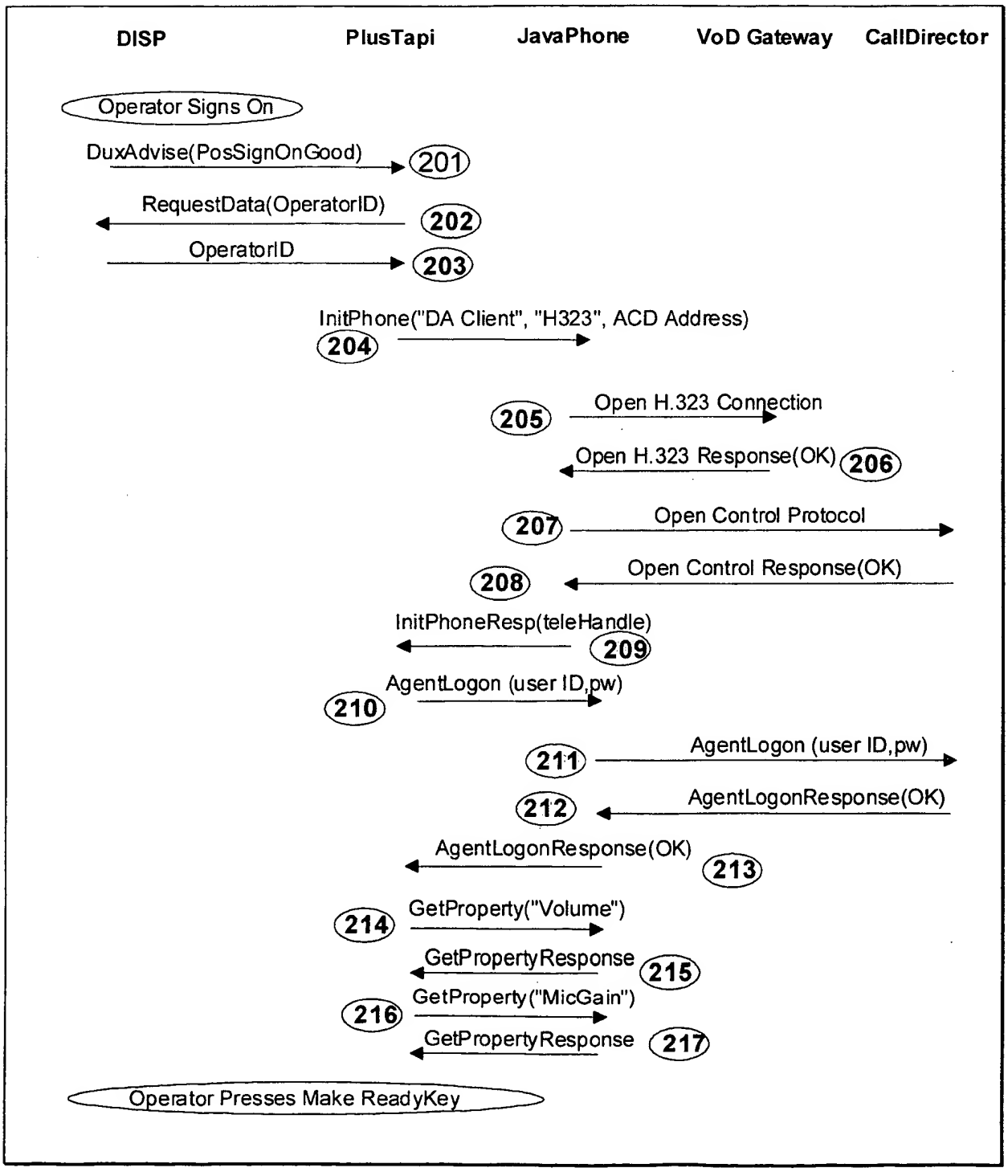

Normal Sign On Message Sequence
DISP
PlusTapi
JavaPhone
VoD Gateway
CallDirector
Operator Signs On
DuxAdvise(PosSignOnGood)
201
RequestData(OperatorID)
202
OperatorID
203
InitPhone("DA Client", "H323", ACD Address)
204
205
Open H.323 Connection
Open H.323 Response(OK)
206
207
Open Control Protocol
208
Open Control Response(OK)
InitPhoneResp(teleHandle)
209
AgentLogon (user ID,pw)
210
211
AgentLogon (user ID,pw)
212
AgentLogonResponse(OK)
AgentLogonResponse(OK)
213
214
GetProperty("Volume")
GetPropertyResponse
215
216
GetProperty("MicGain")
GetPropertyResponse
217
Operator Presses Make ReadyKey

FIG. 8

Normal Sign Off Message Sequence

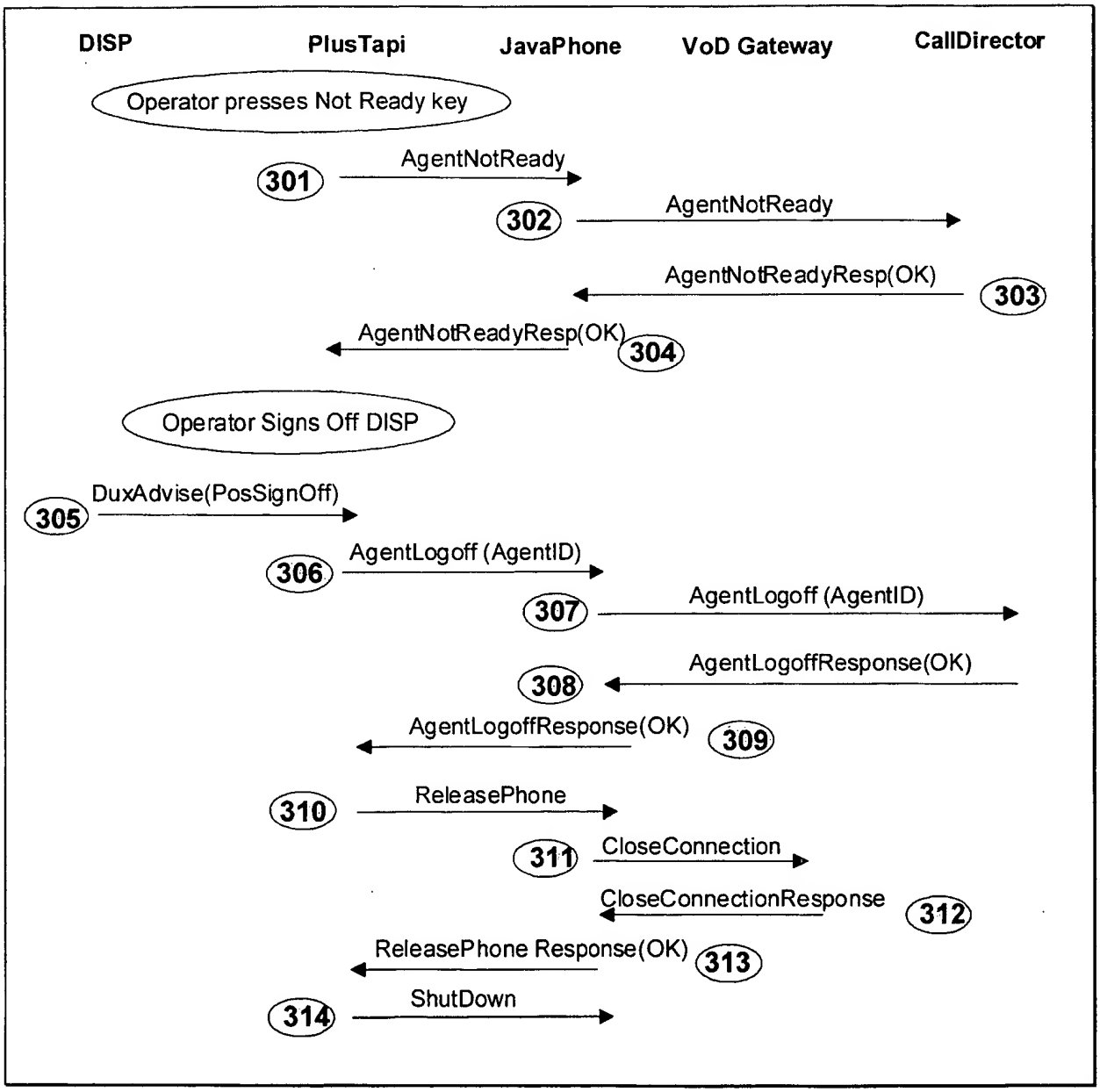


FIG. 9

HeadSet Unjack Logoff Message Sequence

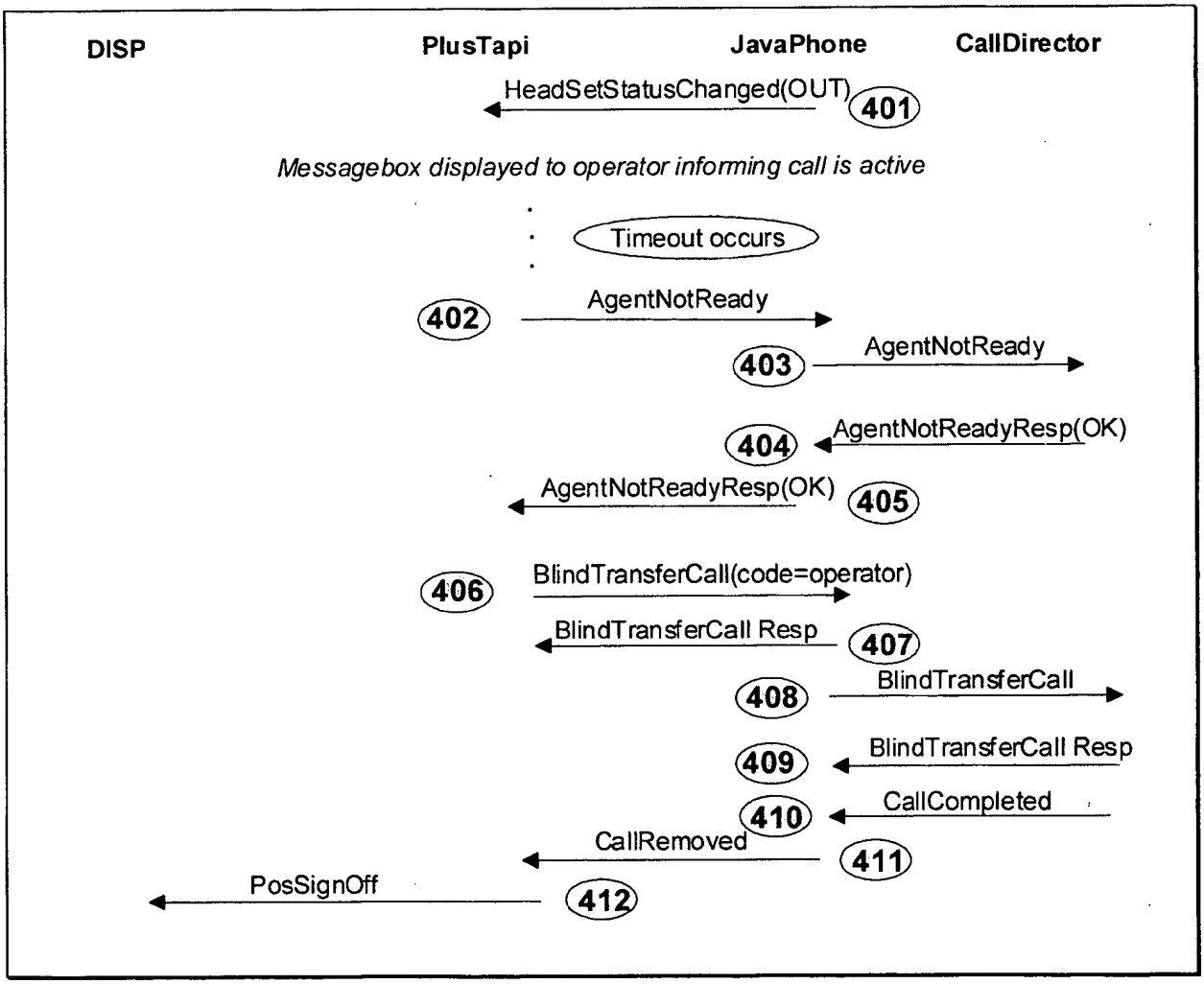


FIG. 10

Inbound Call Message Sequence

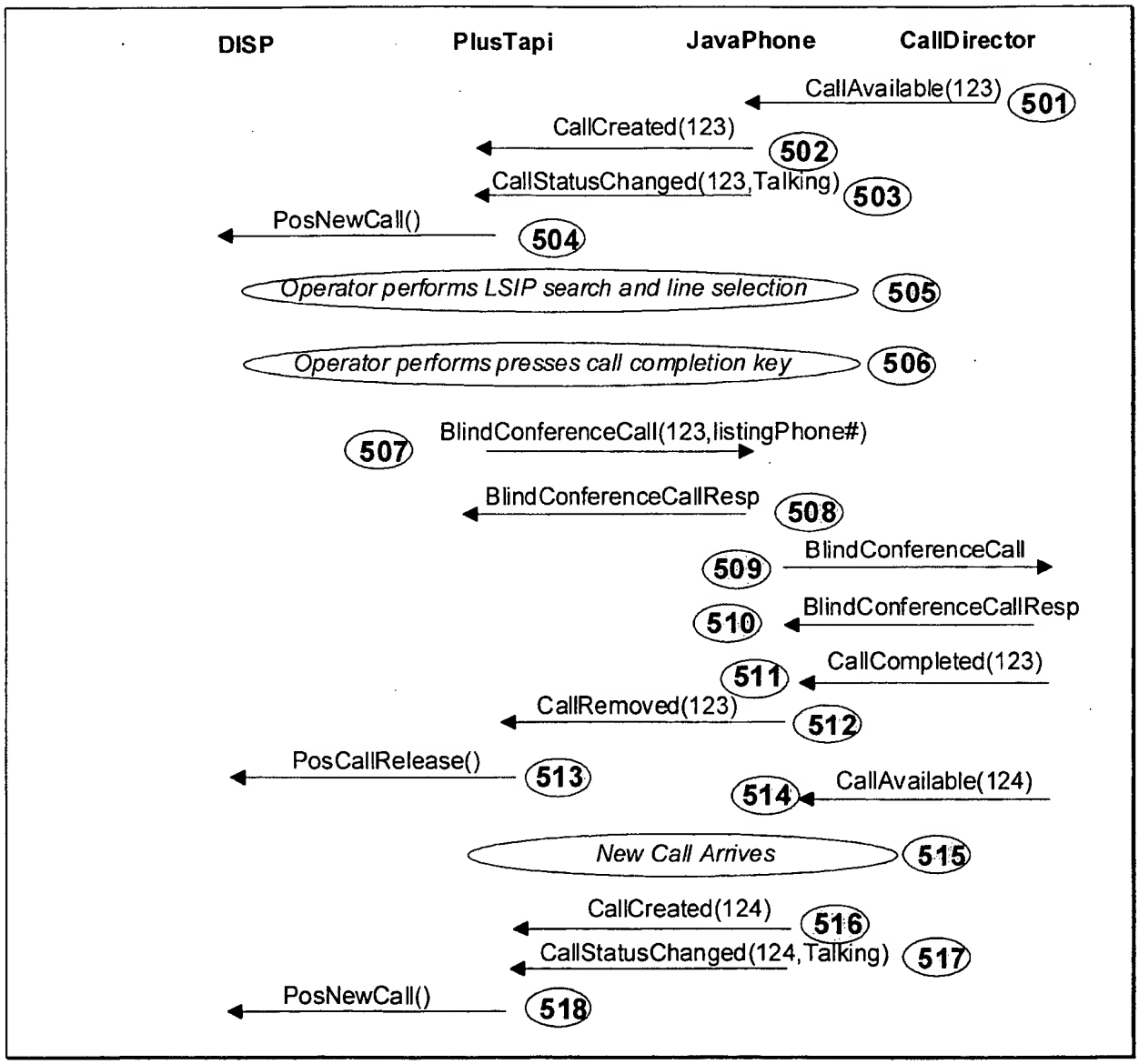


FIG. 11

Sample Dial Number Dialog

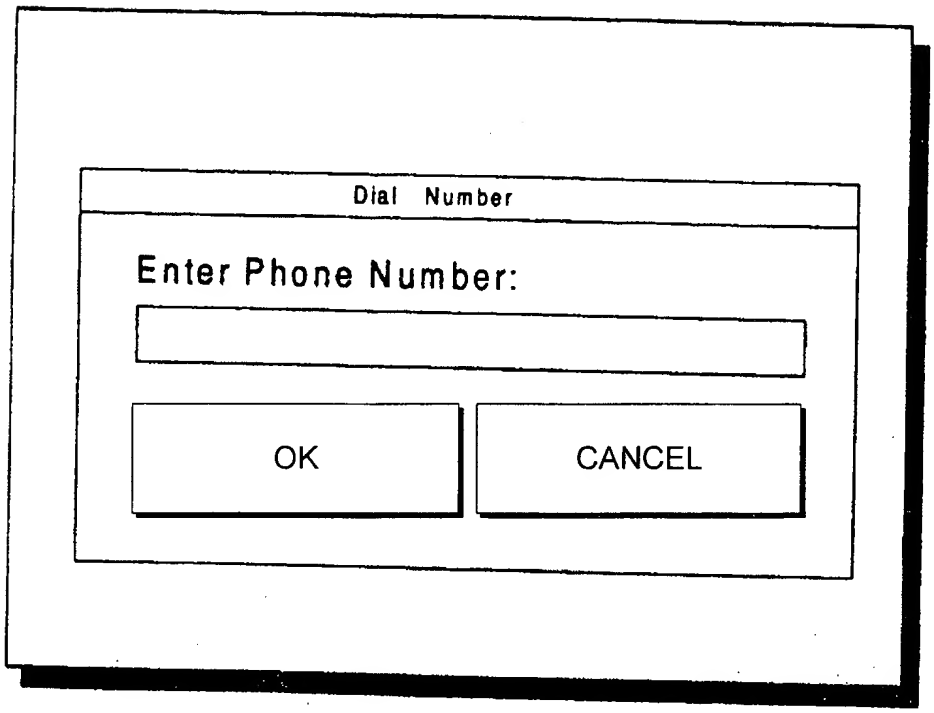


FIG. 12

Outbound Message Sequence

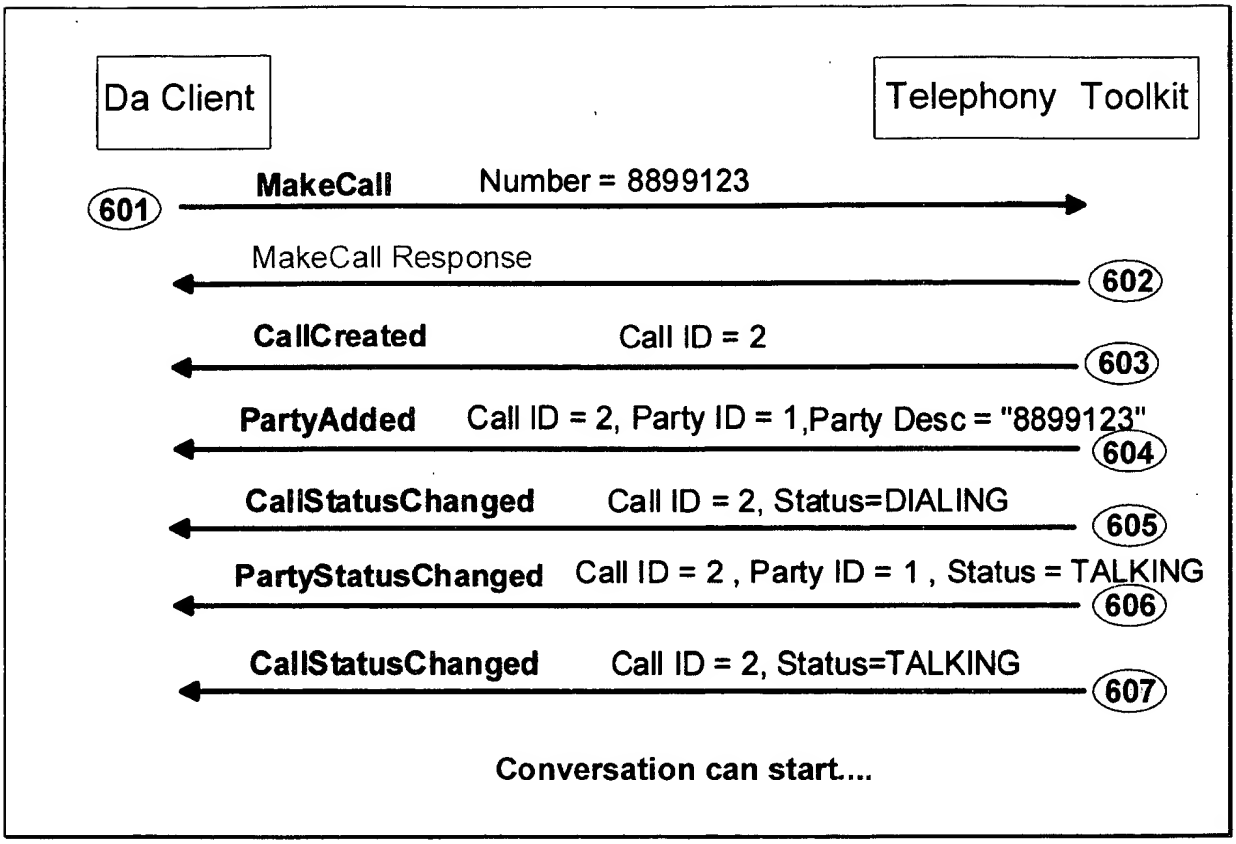
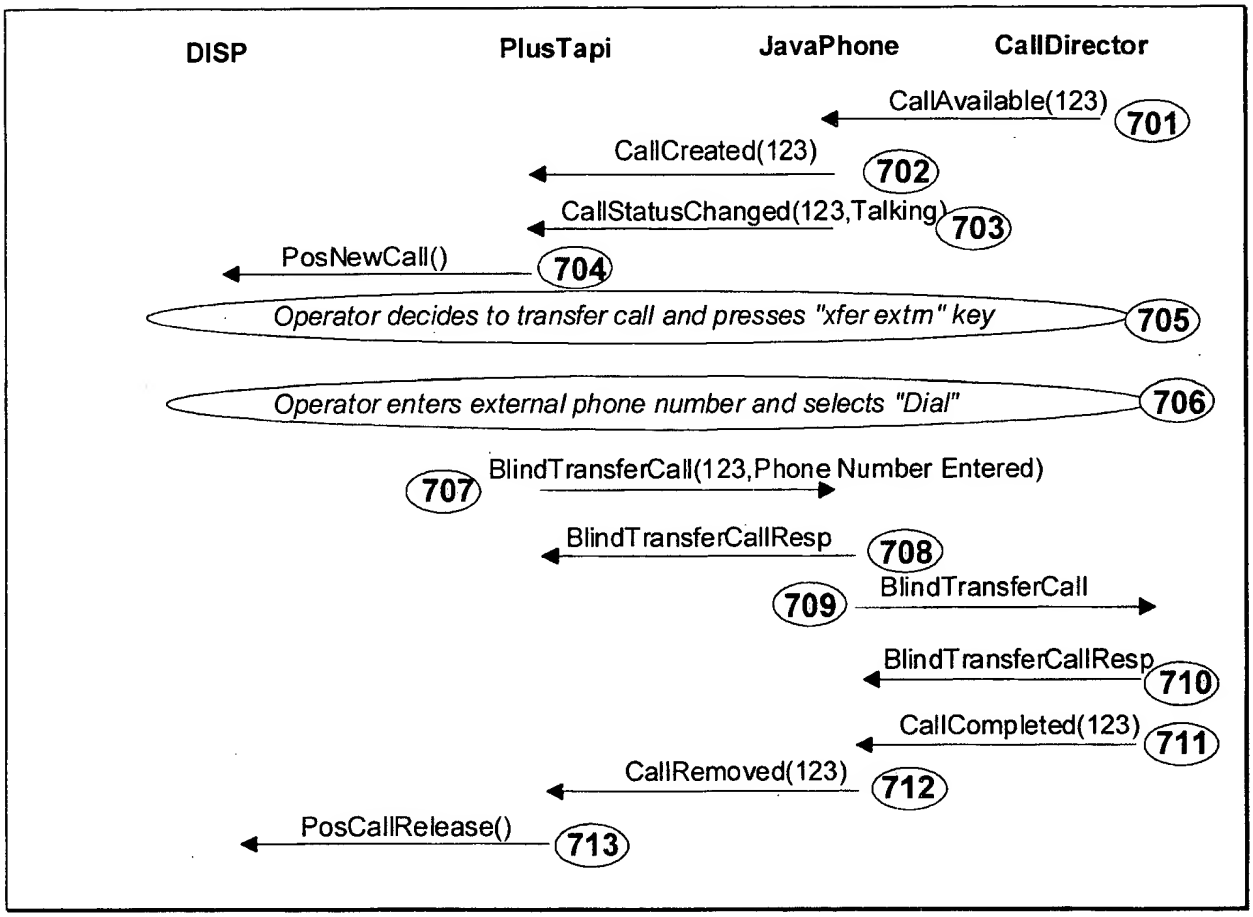


FIG. 13

Call Hold and Unhold Message Sequence



05760.0052.00

FIG. 14

Call Transfer to Outside Number

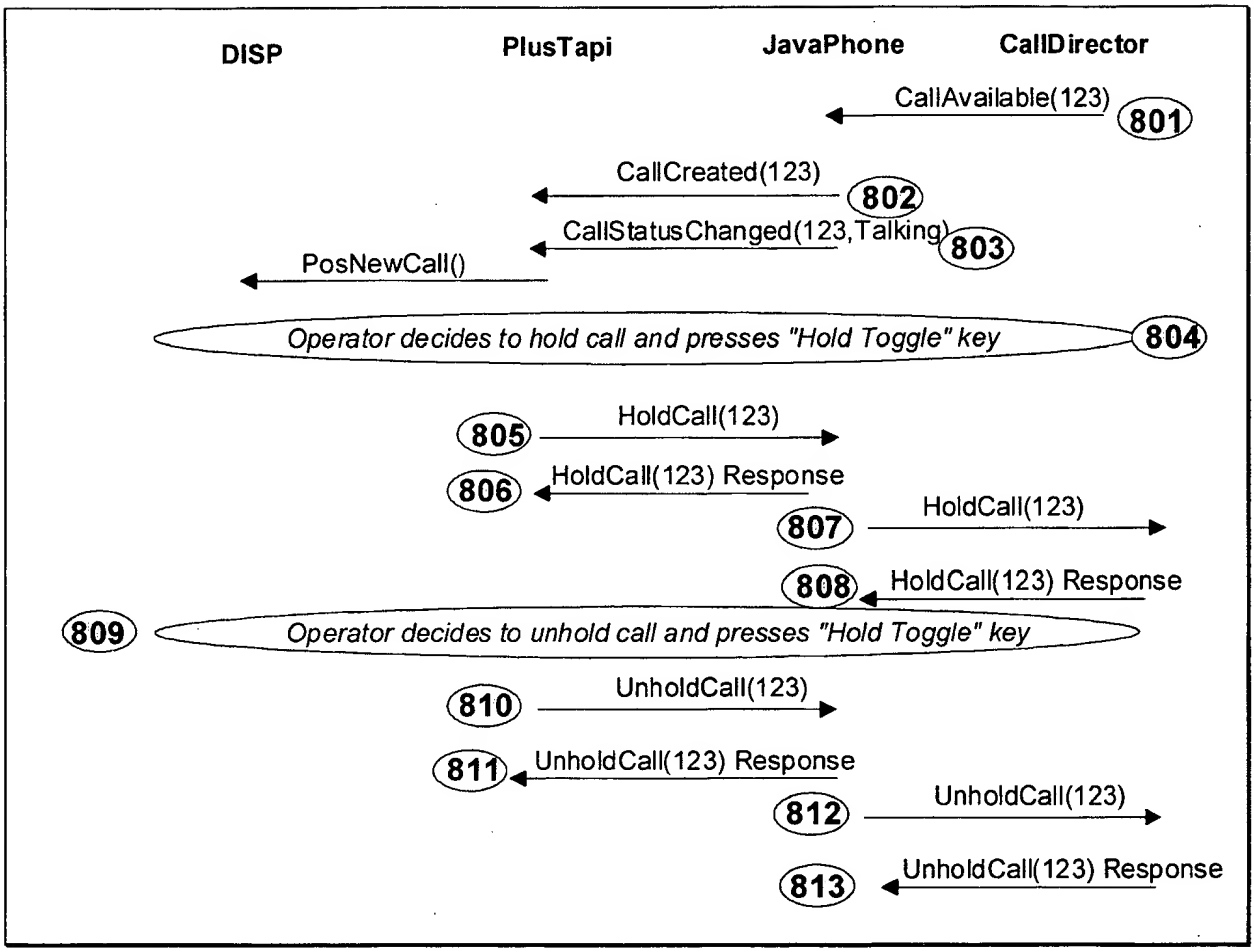


FIG. 15

Call Conference with Supervisor

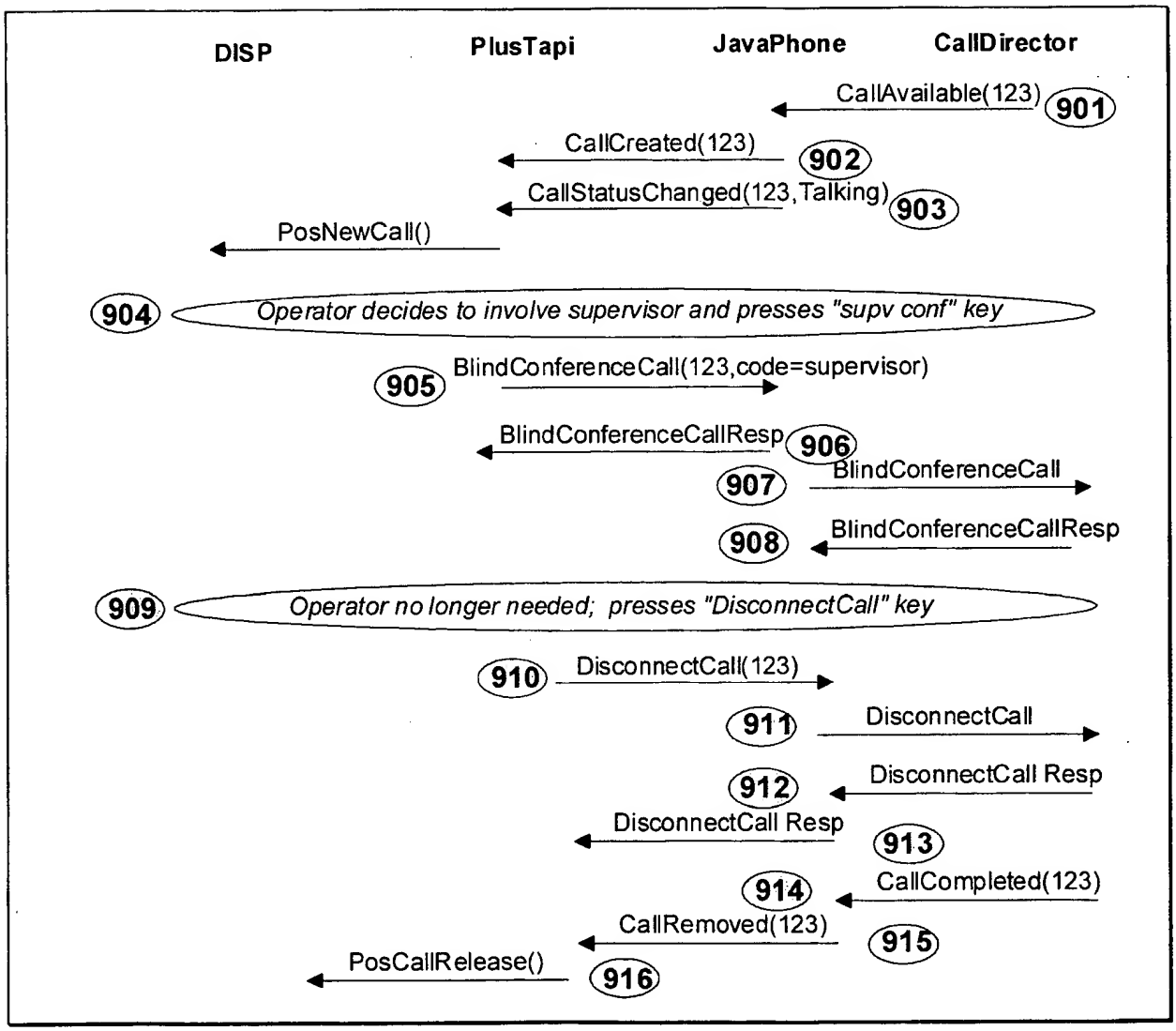


FIG. 16

Operator Hangup
with
DisconnectCall
Key Message Sequence

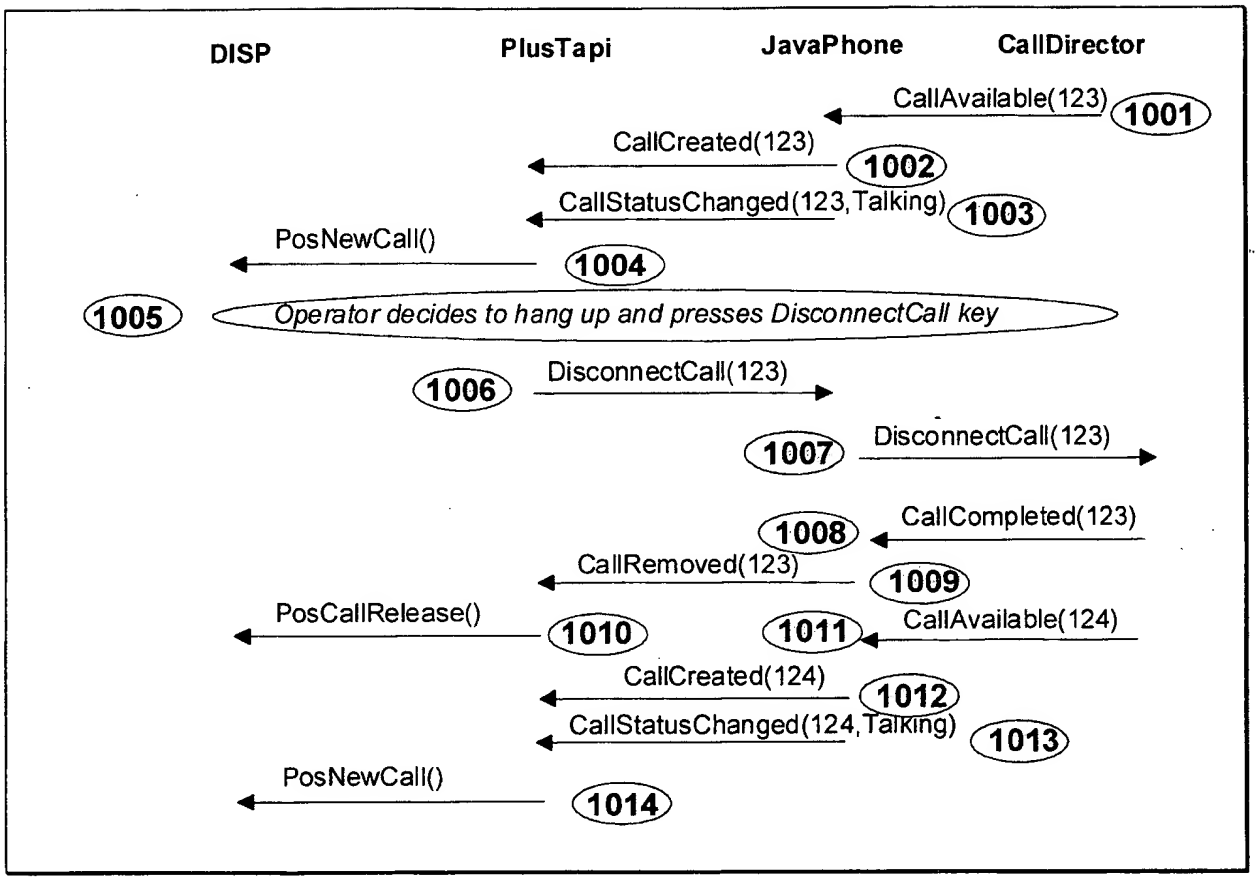


FIG. 17

PlusTapi Utility Mode Panel

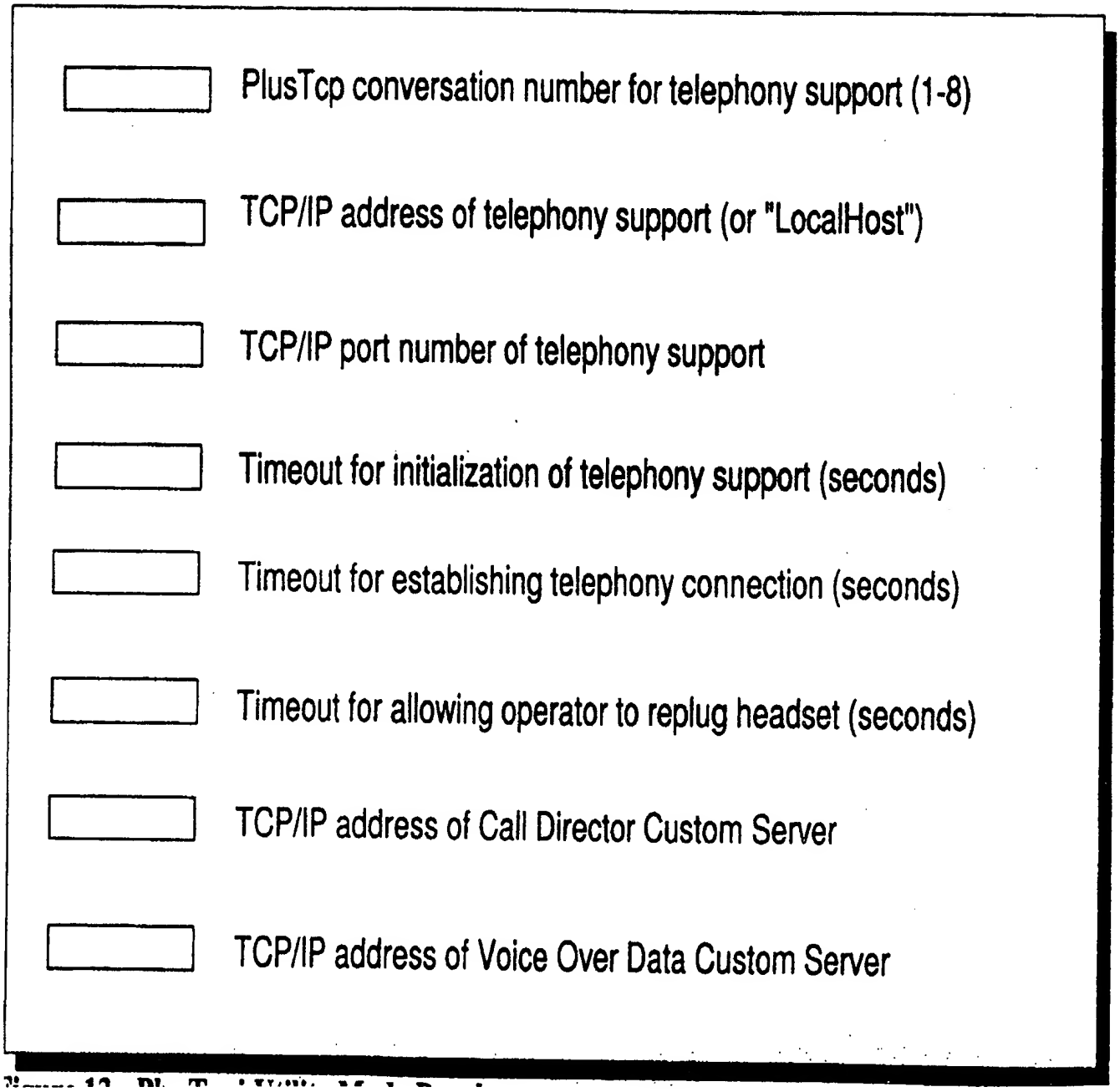


FIG. 18

Sample InfoWin Utility Settings for CSW

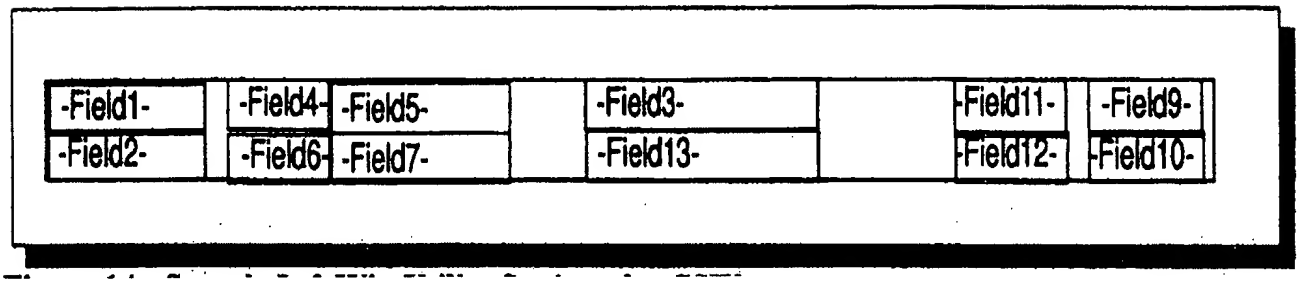
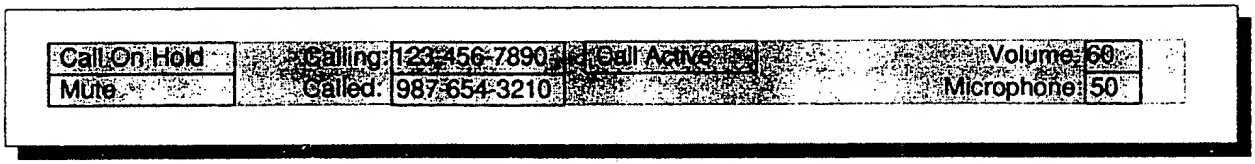


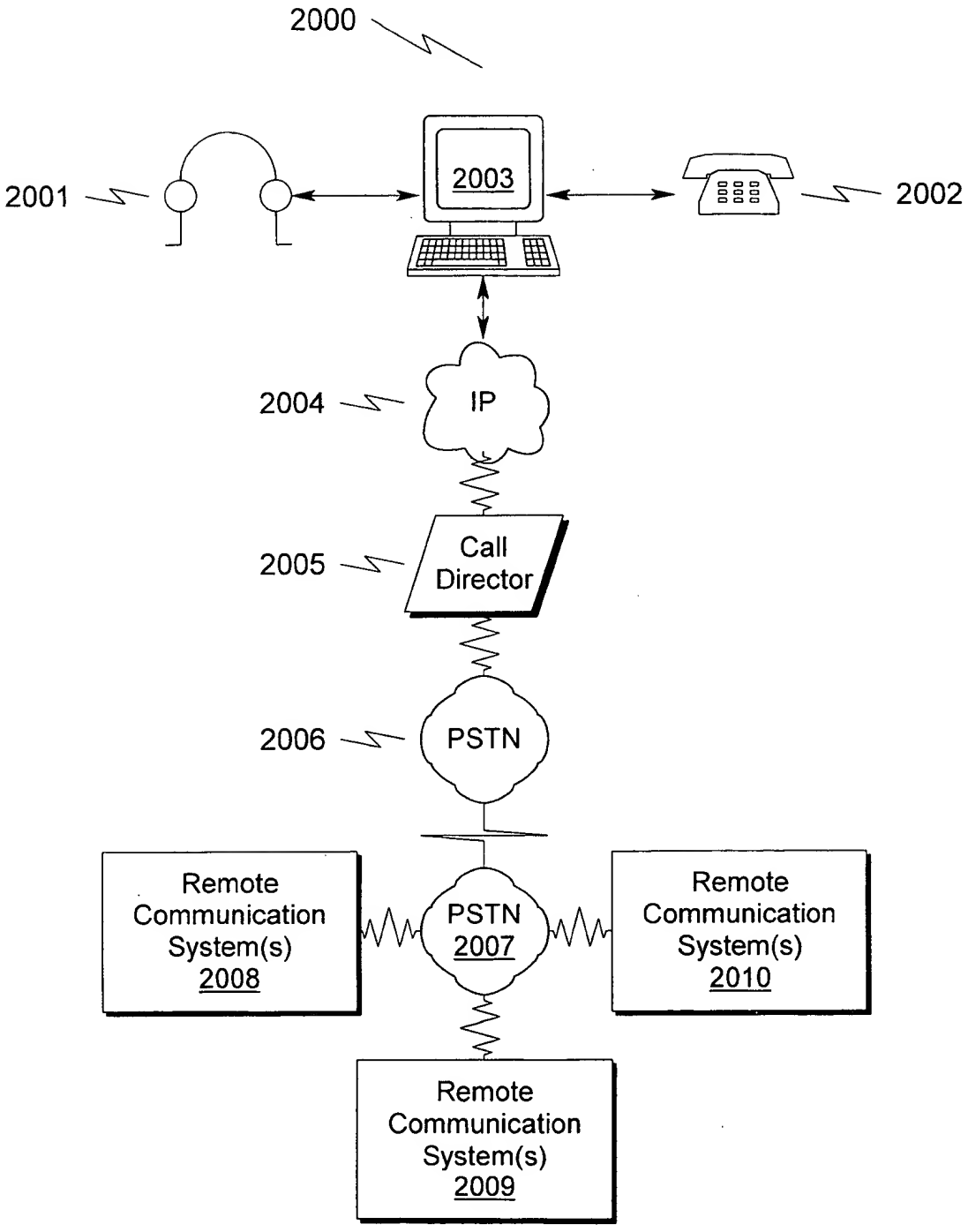
FIG. 19

Sample CSW Running in Normal Mode



05756456.050203

FIG. 20


2000
2001
2003
2002
2004
IP
2005
Call Director
2006
PSTN
Remote Communication System(s) 2008
PSTN 2007
Remote Communication System(s) 2010
Remote Communication System(s) 2009